

Notice of Allowability

Application No.

09/720,998

Examiner

Robert D. Harlan

Applicant(s)

ASUMALAHTI ET AL.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE with amendment filed 09/29/04.
2. ☒ The allowed claim(s) is/are 1-10 and 12-17.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/29/2004 has been entered.

2. Claim 11 has been canceled.

Response to Amendment/Arguments

3. Applicant's amendment and arguments filed on 09/29/2004 have been fully considered and they are found persuasive.

4. The rejection of claims 1-17 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ahvenainen et al., U.S. Patent No. 5,326,835 (hereinafter "Ahvenainen") is withdrawn.

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5. The rejection of claims 1-17 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Barry et al., U.S. Patent No. 6,403,181 (hereinafter "Barry") is withdrawn.

Allowable Subject Matter/Reasons for Allowance

6. Claims 1-10 and 12-17 are allowed.

7. The following is an examiner's statement of reasons for allowance: The closest prior art located or identified by the Examiner is Ahvenainen and Barry.

8. Ahvenainen teaches a multi-stage process for producing polyethylene having a bimodal and/or broad molecular weight distribution in the presence of an ethylene polymerizing catalyst system in a multi-step reaction sequence. See Ahvenainen, Abstract; col. 1, lines 6-9. Ahvenainen further teaches a multi-stage process in which a slurry-gas phase process is used and the stages involved loop reactors followed by gas reactors. See Ahvenainen, col. 1, lines 62-65; col. 2, line 61 through col. 3, line 7. Ahvenainen further teaches the

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use of Ziegler-Natta catalyst in the polymerization process.

See Ahvenainen, col. 3, lines 25-34. Ahvenainen further teaches the use of alpha olefin comonomers. See Ahvenainen, col. 4, lines 62-66. Ahvenainen further teaches an end product that has a density, melt flow and dispersity within the ranges of the claims compositions and pipes. See Ahvenainen, Example 6.

Ahvenainen also teaches the use of polyethylene in the production of pipes. See Ahvenainen, Examples.

9. Barry teaches high performance conduits, the polyethylene resin used to make them and the resins exhibits a bimodal molecular weight distribution or broad molecular weight distribution and is of high molecular weight. See Barry, Abstract; col. 1, lines 19-53. Barry further teaches polyethylene resins with properties (density, comonomer selection, melt flow, etc.) that are within the ranges of present claims.

10. The present invention differs from Ahvenainen and Barry in that the present invention requires: (1) polymerization in the presence of a Ziegler-Natta catalyst and (2) the addition of 350-450 moles of H_2 /kmoles of ethylene.

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11. As of the date of this Notice of Allowability, the Examiner has not located or identified any reference that can be used singularly or in combination with another reference including Ahvenainen and Barry to render the present invention anticipated or obvious to one of ordinary skill in the art.

12. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

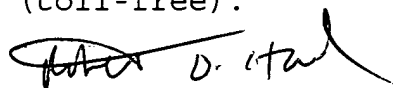
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert D. Harlan whose telephone number is (571) 272-1102. The examiner can normally be reached on Mon-Fri, 10 AM - 8 PM.

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (571) 273-1114. The fax phone number for the

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organization where this application or proceeding is assigned is 703-872-9306.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert D. Harlan
Primary Examiner
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rdh